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New and reconfirmed birds from the state of São Paulo, Brazil, with notes on disappearing species

by Edwin O. Willis & Yoshika Oniki

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In 1985, we reported on new specimens of birds from the state of São Paulo in southeastern Brazil. Our field studies since 1975 have discovered 26 species new for the state. Three have been since confirmed by specimens, and all have been reported from nearby states. Two other species were discovered by colleagues, another by a student, a fourth by a visitor, and reconfirmed by Willis. Several other new species, not noted here, are to be reported by D. F. Stotz and P. Martuscelli (pers. comm.). A further supposed 'species' has been seen, but we think it a hybrid. Here we report on our new birds and other species reconfirmed for the state, as well as on species that seem to be disappearing.

New species

SOUTHERN POCHARD Netta erythrophthalma

A pair in a shallow pond (20°39′S, 48°04′W) in sugar cane fields alongside Mata Chita, Morro Agudo, on 6–7 March 1984, was the first state record (Willis 1992). Alvarenga (1990) later collected a specimen from the Paraiba River Valley, and the bird has been seen since August 1987 at the Tietê Ecological Park in the city of São Paulo, where it is present mainly in winter (D. F. Stotz pers. comm.). Invading eutrophic sunny runoff ponds from the north with deforestation.

GREY HAWK Buteo nitidus

One screamed at Willis on 4 March 1984 at isolated Mata Taboão (20°46′S, 47°48′W), east of Sales Oliveira, and a pair did so by an isolated patch of woods (19°56′S, 49°32′W) just west of the main woodlot of the Paulo de Faria State Reserve on 14 October 1987. The species may be invading the state at man-made forest edges, or may have been present at natural edges of these northwestern deciduous woodlands.

CHIMANGO CARACARA Milvago chimango

Willis and students saw one on the dunes near the northeast end of Ilha Comprida (24°41′S, 47°26′W) on 8 November 1986. Willis saw individuals on the beach a few kilometres southwest, 5 July 1989 and 16 June

1990. The species seems to be spreading northeast along the beaches of southeastern Brazil, due partly to clearing for vacation homes, mainly as a winter visitor.

AZURE GALLINULE Porphyrula flavirostris

Willis saw one early on the morning of 1 January 1987, at the edge of a varzea (seasonally flooded vegetation) pond near the Paraná River at soon-to-be-flooded Lagoa São Paulo (21°40′S, 52°02′W). It climbed on grass stalks to bend them to the water and eat seeds. Probably regular in summer in marshes of the west, but likely to disappear as the rivers become reservoirs.

TWO-BANDED PLOVER Charadrius falklandicus

We found two separate individuals by the ocean on beaches of Ilha Comprida, 7 July 1983, well southwest of the first *M. chimango* record. The species may be regular as a midwinter visitor, but we have not seen it on a few such visits since 1983. Humans swarm to São Paulo beaches, drastically limiting shorebirds, and the process is starting on Ilha Comprida with plans for a bridge at its northeast end.

WHIMBREL Numenius phaeopus

One on the semi-open storm-cleared zone at the northeast tip of Ilha Comprida, 16 June 1990 (Willis).

RED-BELLIED MACAW Ara manilata

A bird of *buriti* (*Mauritia* sp.) groves south to Minas Gerais, found by Willis in the disappearing *buriti* gallery woods of northern São Paulo in 1987 (10 September, pair visiting cavity in broken *buriti* stub near the busy highway at 20°13′S, 47°50′W, Buritizal township; also 20°14′S, 47°42′W near town and maximum of seven at the Boca do rio das Pedras, 20°11′S, 47°53′W, on 29 October).

LEAST NIGHTHAWK Chordeiles pusillus

Dickerman (1988) incorrectly reported the Least Nighthawk from São Paulo, thinking Natterer's "Nos Puritis" (Buritis) to be in São Paulo when it is in Goiás. It does occur south to northern São Paulo, however, as Willis found several at the Fazenda Ribeirão do Cervo (21°8′S, 47°21′W) 10 March 1984. Later he found it at Pedregulho (20°15′S, 47°27′W) and Rifaina (20°6′S, 47°24′W) as well as just west of the Ilha Solteira dam in Mato Grosso do Sul (Fazenda UNESP, 20°23′S, 51°23′W).

FORK-TAILED PALM-SWIFT Tachornis squamatus

We found Fork-tailed Palm-swifts in royal palms of the central plaza in Batatais (20°51′S, 47°35′W), 1 April 1983. They are regular in *buriti* and other palm groves of the north, from near Morro Agudo (20°39′S, 48°4′W) to Rifaina, and occur in *buritis* near Selvíria, Mato Grosso do Sul (20°28′S, 51°30′W).

LONG-BILLED STARTHROAT Heliomaster longirostris

We saw a female visiting *Hibiscus* sp. on 9 September 1981 at our home in Barão Geraldo, just north of Campinas at 22°50′S, 47°05′W. We do not know the basis for Meyer de Schauensee's (1970: 160) report or for that of Ruschi (1965) for *H. furcatus*. Either could wander southeast into the state, especially with forest destruction.

SPOT-BACKED PUFFBIRD Bucco maculatus

Willis found a pair in a patch of *cerrado* (savanna woodland) at km 69 (20°48′S, 47°44′W) east of Sales Oliveira on 5 March 1984, plus others in remnant dense *cerrados* near Pedregulho, Rifaina, Buritizal and Jeriquara in the same north-central region. At sunrise and sunset, they sing everywhere in such patches, rapidly being cleared because everybody mistakes natural savannas for worthless second-growth "scrub" while scientists say little to correct them.

ITATIAIA SPINETAIL Oreophylax moreirae

The serra de Queluz extends to above 2700 m southwest from Itatiaia as one of the wildest regions of São Paulo. On 18 April 1987, it took Willis a 16-hour hike (including return) to see this spinetail on the São Paulo side of Pico dos Três Estados at 2400 m (22°24′S, 44°48′W). Common in bushes above timberline and 2200 m all along the spectacular route there, on the border of Minas Gerais and Rio de Janeiro.

CHOTOY SPINETAIL Synallaxis phryganophila

Willis found a Chotoy Spinetail in bushes of a pasture of Fazenda Promissão, 11 km south of Nova Independência, north bank of the Aguapeí River (21°09′S, 51°35′W), on 4 January 1985. Probably invading the west of the state with forest cutting, but many of these pantanal birds may always have lived along the Paraná River.

CINEREOUS-BREASTED SPINETAIL Synallaxis hypospodia

Willis found one on 1 January 1985 in bushy pastures (21°00′S, 50°28′W) of Fazenda Macaúbas, near Santo Antonio de Aracanguá, and later others in similar bushy pastures at Lagoa São Paulo, 1 January 1987. Another scrubland and river-scrub species, recently found in northwestern Paraná State (F. Straube, I Brazilian Ornithol. Congress, Belém, July 1991).

RUFOUS-FRONTED THORNBIRD Phacellodomus rufifrons

Oniki spotted the first nests for the state on 1 April 1983 in a pasture tree of Fazenda Recanto da Mata (20°43′S, 47°31′W) by the highway just north of the Rio Sapucaí, and Willis soon found the birds in nearby scrub. On 9 March 1984 there was a nest just south of Altinópolis, in a pasture tree (21°03′S, 47°25′W) where there was no nest in 1983. Apparently spreading southwest with deforestation.

YELLOW-BREASTED FLYCATCHER Tolmomyias flaviventris

Willis found one in semi-open trees over cacao at Fazenda Capricórnio (23°23'S, 45°05'W), near Ubatuba, 11 August 1986 but not on other visits. Probably a winter wanderer from semi-deforested zones northeast in Rio de Janeiro, and may become established as northeastern São Paulo forests are cut for beach development.

LESSER KISKADEE Pitangus lictor

The characteristic *dree*, *dear-ur* call near an old oxbow (21°37′S, 47°49′W) of the Mogi-Guaçu River in the Luiz Antonio Experiment Station, 30 December 1982, presaged a rash of records by Willis at similar lagoons in the west and centre of the state: Teodoro Sampaio State Reserve (near Paraná); south of Lins on the Rio Feio (21°45′S, 49°50′W),

Fazenda Anhangaí $(20^{\circ}53'S, 50^{\circ}41'W)$, even a wanderer eating semi-frozen dragonflies atop twigs early 31 May 1984 at the Broa Reservoir $(22^{\circ}12'S, 47^{\circ}52'W)$. Probably always present on western rivers, as recently reported from Argentina.

RUSTY-MARGINED FLYCATCHER Myiozetetes cayanensis

Willis found several pairs in the semi-wooded former 'mini-pantanal' of the lower Tietê River (20°54′S, 50°40′W), Fazenda Aracanguá, 24 April 1984 and later further down on Fazenda São Rafael (20°52′S, 50°57′W) in the north of the township of Mirandópolis. All sites are now under water of the Tres Irmãos Reservoir, but the species likely persists and was present long before man along water edges throughout the region.

PURPLISH JAY Cyanocorax cyanomelas

A Mato Grosso bird spreading east with deforestation; Willis saw one wanderer fly from isolated trees to the main woodlot of Mata Chita, Morro Agudo, on 9 September 1987. One would think of an escaped captive bird, but *Paroaria* wander even further southeast.

VEERY Catharus fuscescens

We obtained the first records 27–28 November 1982 in *cerrado* at the Porto Ferreira State Reserve (21°50′S, 47°26′W), with later records at several inland localities. Later it was collected in the Serra do Mar and at Iguape (Pereira *et al.* 1988). It seems uncommon but regular in the northern winter in secondary and similar woodlands, rare in primary forest.

SCREAMING COWBIRD Molothrus rufoaxillaris

We saw young on 16 December 1982 in a group of *Gnorimopsar chopi* at the lake (22°50′S, 49°15′W) of the state reserve of Aguas de Santa Barbara, mistaking them for *Molothrus badius* (not recorded from São Paulo, as our 1985 comment was incorrectly based on these records). Later collected, as we reported in 1985. Now regular, with flocks in winter, in the northwestern quarter of the state.

RED-LEGGED HONEYCREEPER Cyanerpes cyaneus

Willis found a pair in a flowering eucalyptus at the dam of the Horto Florestal, Rio Claro, in the winters of 1985, 1986 (Willis 1987) and 1987, while only a female was seen in 1988. Otherwise not recorded for the state, suggesting that pairs move together on migrations and revisit distant flowering trees that they have learned.

YELLOW-BILLED CARDINAL Paroaria capitata

Willis found one at the now flooded 'mini-pantanal' marshes of Fazenda Anhangaí (20°53'S, 50°41'W), on 23 April 1984. One was following the tiny Itaqueri River up to the *serra* above Broa Reservoir at 22°15'S, 47°52'W, 725 m elevation, on 28 December 1986, indicating that such birds can wander far looking for marshes and 'pantanals'; it had probably followed the Tietê and Jacaré-Guaçu rivers hundreds of kilometres to reach Broa.

DARK-THROATED SEEDEATER Sporophila ruficollis

Meyer de Schauensee (1970: 409) reported the species, perhaps based on Pinto's (1944) register of a bird that had lived 15 months in captivity.

Willis and T. Sigrist saw one male, changing from winter to summer plumage, in migrant flocks of *Sporophila hypoxantha* and *S. melanogaster* on the *campos* of Itirapina (22°14′S, 47°52′W) on 21 November 1988. These small 'caboclinhos' seem very close to the widespread *S. bouvreuil* and stop on the almost extirpated São Paulo *campos* in October and November, coming from winter sites east to Minas Gerais and going to nesting *campos* in Argentina and southern Brazil to Paraguay. Loss of São Paulo natural savannas may cause problems for migrations of these birds, as well as concentrate them in the places easily found by cage-bird fanciers. The conservation problem of these seedeaters is one of the worst in Brazil and Argentina, but has received almost no attention nationally or internationally. Proposed sand mining by international firms is only one of the problems.

CHESTNUT SEEDEATER Sporophila cinnamomea

Willis found males with migrant flocks of 'caboclinhos' on the *campos* of Itirapina 1 November 1988 and 22 October 1989, the last with head and neck plus a belly spot in summer plumage and the rest of the body in female-type plumage.

MARSH SEEDEATER Sporophila palustris

Willis found males with migrant flocks on the *campos* of Itirapina, 6 November 1988 and 29 October 1989. Not including the following 'species', fourteen *Sporophila* are registered from São Paulo, eleven of them from Itirapina.

Sporophila 'ardesiaca'

This supposed species appeared with seedeater flocks on the *campos* of Itirapina on 21 November 1988 (Willis and T. Sigrist). It is a blackheaded S. nigricollis with the body (white belly and grey back) of S. caerulescens, and we think it is a hybrid between the two. Most hybrid birds in MZUSP come from the Rio Doce region of Espirito Santo and Minas Gerais, where the two forms meet: no. 25325 is like S. nigricollis but with the white moustache of S. caerulescens (Willis saw a similar bird by the CVRD Reserve at Linhares, Espirito Santo, 8 September 1989); no. 33894 is like S. caerulescens but with a dark throat and vellowish belly; no. 25337 is an 'ardesiaca'. S. nigricollis appears at Itirapina and other places in northern São Paulo in October and November seedeater migrations, once even 8 January 1989 at the Broa cerrado (22°10'S, $47^{\circ}52'$ W), and could well hybridize here in small numbers with S. caerulescens, an abundant species in the state. Rolf Grantsau (pers. comm.) says the two species have nearly the same song, the females are almost identical, and we feel Sick (1985 and earlier) should have decided that they hybridize to give various types of 'ardesiaca' plumage with the sprinkling of S. nigricollis southward.

Reconfirmed species

JABIRU Jabiru mycteria

A nest was found in a tall tree on the lower Tietê, 'mini-pantanal' of Faz. Anhangaí, 24 April 1984 (Willis). A reservoir destroyed the whole region, once home of thousands of ducks, herons, storks and other water

birds. Occasional westward, nesting mostly in the Pantanal along the Paraguay River.

SOUTHERN SCREAMER Chauna torquata

Willis found one at the edge of the new reservoir at Teodoro Sampaio on 12 July 1989 (22°38′S, 52°16′W). Few records, perhaps winter or wandering birds.

LESSER YELLOW-HEADED VULTURE Cathartes burrovianus

One over the soon-to-be-flooded pantanal of Lagoa São Paulo on 31 December 1986 (Willis). Only recorded a few times in the far west.

SWAINSON'S HAWK Buteo swainsoni

Willis and students found migrants over the *campos* of Itirapina on 24 November 1989, and he found another on 28 October 1991, probably strays east of the normal migratory route. Sick (1979) is the only previous report.

BLACK-COLLARED HAWK Busarellus nigricollis

Willis encountered lone birds on the 'mini-pantanal' of Fazenda São Rafael on 26 April 1984, along the ribeirão da Onça marsh (21°11'S, 48°05'W) west of Sertãozinho on 8 and 11 October 1985, at Lagoa São Paulo on 31 December 1986, and on the Teodoro Sampaio reservoir 2–3 January 1987. Likely regular in the west, but few records.

CROWNED EAGLE Harpyhaliaetus coronatus

Adult soaring 12 August 1984 over a busy highway at 960 m in the partly deforested Serra de Mantiqueira (23°10'S, 46°16'W) east of Nazaré Paulista (Willis). An immature was found shot on the serra da Bocaina on 23 June 1991 by A. A. Figueiredo Neto (MZUSP 70584; D. F. Stotz pers. comm.). Rarely found, perhaps regular on open serras.

BLACK-AND-WHITE HAWK-EAGLE Spizastur melanoleucus

Soaring and giving a series of peeps at noon high over the forest at Teodoro Sampaio (22°35′S, 52°21′W) on 12 July 1989 (Willis). D. F. Stotz (pers. comm.) saw one soaring at Boracéia on 25 February 1991. Few records.

ORNATE HAWK-EAGLE Spizaetus ornatus

Occasional birds in eastern forests only (Willis): 26 August 1987 at Intervales (Bocaina, 24°16′S, 48°26′W), Ilhabela (23°50′S, 45°20′W) on 11 September 1984, and Sete Barras (24°10′S, 47°56′W) on 24 September 1983. Few records.

LITTLE WOOD-RAIL Aramides mangle

Three in a very small patch of mangroves at the northeast end of Ilha Comprida on 16 June 1990 (Willis). They fly readily to high in the bushes, being small and probably light birds; descend to flick dead wet leaves with the bill. Several specimens in MZUSP from Icapara, just across the channel, plus other sightings north to Peruibe and south to Paraná in mangroves, at times with *A. cajanea* (D. F. Stotz & P. Scherer pers. comm.).

OCELLATED CRAKE Micropygia schomburgkii

Voice regular on the *campos* of the state reserve of Itapetininga (23°39′S, 47°59′W), recently ploughed by Instituto Florestal agronomists

to plant introduced trees, and on the campos of Itirapina (Willis). Few records.

SEMIPALMATED SANDPIPER Calidris pusilla

One on the beach across from the northeast end of Ilha Comprida, 24 June 1984 (Willis). A specimen collected by R. Grantsau on the Boracéia beach 30 October 1964 seems the first state record, a fact we overlooked in 1985. Probably regular, but crowds and cars leave little room for sandpipers on São Paulo beaches.

SOUTH POLAR SKUA Catharacta maccormicki

Rolf Grantsau (pers. comm.) has confirmed as a South Polar Skua the specimen we (1985) provisionally registered as "Stercorarius pomarinus?".

BAND-WINGED NIGHTJAR Caprimulgus longirostris

We found several on 26 January 1983 on the rocky tops of cliffs (24°18′S, 49°13′W) at the Agronomic Institute south of Itararé, and others singing on the *serra* near Itapirapuã (24°21′S, 49°10′W) on 15 August 1989. Few records, perhaps regular on high *serras*; does not seem to have invaded cities as in Rio de Janeiro (Sick 1985).

SPOT-TAILED NIGHTJAR Caprimulgus maculicaudus

Willis found several singing in pastures along the marsh west of Sertãozinho on 8, 21 and 22 October 1985; singing at the Santa Lucia marsh (21°40′S, 48°01′W) of the Fazenda dos Alpes on 12 November 1988 and at the Boca do rio das Pedras on 13 September 1987. E. Dente (pers. comm.) registered it near Pederneiras. Records few.

HELMETED WOODPECKER Dryocopus galeatus

A female low on trunks of tall second growth at 800 m on the rio do Carmo road (24°17′S, 48°25′W) at Intervales on 12 February 1987, pecked at a few sites and readily fled. C. Yamashita (pers. comm.) encountered another in similar habitat at Carlos Botelho State Park. Few recent records, but easily overlooked as shy and in understory.

FORK-TAILED PYGMY-TYRANT Hemitriccus furcatus

Calls a loud tee-tee-teet trill, like others of the genus, early in the morning by the last tall forest area along the coastal road between Rio de Janeiro and Santos, Rio Quiririm (km 23) (23°20'S, 44°56'W). T. A. Parker III registered it at Fazenda Capricórnio and elsewhere near Ubatuba (D. F. Stotz pers. comm.)

MASKED WATER-TYRANT Fluvicola nengeta

As noted by Willis (1992), I. Sazima photographed the first pair for the state sleeping together in mangroves of Ilhabela on 1 October 1980; specimen by Alvarenga (1990); spreading to many open ponds in the northeastern part of the state during the last ten years, due probably to forest destruction.

OLIVE-SIDED FLYCATCHER Contopus borealis

Willis et al. (1993) register several birds. First record at Boracéia by D. W. Snow.

WHITE-BANDED MOCKINGBIRD Mimus triurus

J. Vielliard and J.-D. Lebreton registered the first bird for the state at Marujá (25°12′S, 47°59′W); this and later records, all winter birds along the coast, noted by Argel-de-Oliveira (1987) and Willis & Vielliard (1989).

WHITE-STRIPED WARBLER Basileuterus leucophrys

We found it regular in gallery woodlands at São Carlos and on the *campos* of Itirapina, atop the sandstone *chapada* or mesa of São Carlos, an isolated *cerrado* zone in central São Paulo; also northward in similar swamps, where it is easily overlooked except for its loud vocalizations.

SCARLET-HEADED BLACKBIRD Amblyramphus holosericeus

F. F. Ferrari (pers. comm.) saw the first Scarlet-headed Blackbirds in 1984 on the Paranapanema river, and Willis registered others in marshes of the lower Aguapei (Tupi Paulista bridge, 21°13′S, 51°30′W; also Fazenda Promissão) on 29–30 April 1984. We do not know if it nests or only appears in winter.

BLACK-FACED TANAGER Schistochlamys melanopis

Willis recorded one in edges of *cerradão* of the Fazenda dos Alpes, Santa Lúcia, on 30 December 1988. Few records northward, mostly over 50 years ago.

Disappearing species

LESSER NOTHURA Nothura minor

A bird of frequently cleared campo and campo cerrado habitats, recently only at Itirapina where not registered since the company that owned its habitat ploughed the centre of the zone in 1988. Emas National Park in Goiás is the only place we know where $N.\ minor$ is protected.

DWARF TINAMOU Taoniscus nanus

A *campo* bird not recorded recently.

BAY-WINGED HAWK Parabuteo unicinctus

Although a bird of dry woodlands, it depends on group nesting and probably chases chickens. It is unrecorded from the state since collected in the 1800s in the heavily populated Paraíba Valley.

RED-THROATED CARACARA Daptrius americanus

A forest-interior bird (Thiollay 1991) that vanished with forest clearing in central and western São Paulo in the last 50 years.

BARE-FACED CURASSOW Crax fasciolata

Rare in the northwest, seen recently only at Paulo de Faria and at Nova Independência. Hunted in the few gallery woods left in the state, though common in the Pantanal.

RED-AND-GREEN MACAW Ara chloroptera

A pair flew across the Paranapanema River to the state of Paraná at Teodoro Sampaio, 12 July 1989 (Willis). Forest guards see occasional birds, but report that nestlings at the edge of the new reservoir were robbed by bird fanciers. Once regular far to the east, now almost gone.

BLUE-AND-YELLOW MACAW Ara ararauna

A pair in palms on the now flooded 'mini-pantanal' of Fazenda Aracanguá on 24 April 1984 (Willis). Guards report it at Teodoro Sampaio. Almost gone, mostly wanderers from the west.

FLAME-CAPPED PARAKEET Aratinga auricapilla

Still locally numerous at Mata Chita, the Pedregulho canyon or *furna*, and other vanishing northern dry woodlands; only protected at the Paulo de Faria reserve, where cattle and hunters are a problem.

Amazona parrots

A. xanthops of badly destroyed western open zones is not recorded recently; it survives mainly in Emas National Park in Goiás. A. aestiva, though the most popular cage-bird species, survives in Teodoro Sampaio and other areas in reduced numbers. A. brasiliensis of the Ilha Comprida region has been almost exterminated in the last few years by beach-house roads that give cage-bird traders access, though a few are protected at nearby Ilha do Cardoso Park. Other species in the state seem protected by reserves, though subject to illegal capture.

BLUE-EYED GROUND-DOVE Columbina cyanopis

A bird of open western zones, not recorded since early this century.

PURPLE-WINGED GROUND-DOVE Claravis godefrida

Said to follow bamboo seedings in eastern forests, now rare events because only bamboos that live on steep slopes survive. T. A. Parker III recently found one near Ubatuba (D. F. Stotz pers. comm.).

WHITE-WINGED NIGHTJAR Caprimulgus candicans

A bird of the disappearing campos, not registered since Natterer.

THREE-TOED JACAMAR Jacamaralcyon tridactyla

We do not know why this bird disappeared, perhaps because clearing in the last 50 years has left hardly any large forest tracts across the centre of the state. Recorded at several interior localities before the clearing 'binge'.

WHITE-BEARDED ANTSHRIKE Biatas nigropectus

Pairs live in bamboo at Intervales, following flocks of similarly coloured *Philydor fuscus* in the understory whenever possible; mimicry probable (Willis 1989). Not seen elsewhere, perhaps disappearing.

SOUTHERN BRISTLE-TYRANT Phylloscartes eximius

Another frequent bird of understory flocks in western forests until 50 years ago, which we encountered only in Paraná State (mainly Iguaçu National Park) in 1975.

RUFOUS-SIDED PYGMY-TYRANT Euscarthmus rufomarginatus

A bird of western semi-open zones, not recorded since 1821 (Pelzeln 1869). Survives in Mato Grosso (Willis & Oniki 1990).

CREAM-BELLIED GNATCATCHER Polioptila lactea

Another forest bird of the interior, known to stay in treetop flocks; not registered since one pair in 1905 (Pinto 1944).

OCHRE-BREASTED PIPIT Anthus nattereri

Like *Nothura minor*, a rare bird of interior savannas, registered on the *campos* of Itirapina until 1988 and on those of Aguas de Santa Bárbara (22°46′S, 49°15′W) earlier. Seems to like swampy sites and lagoons, especially where recently burned. With reduction of natural open habitats, the chance that birds will find recently burned sites near swampy ones drops to near zero.

COAL-CRESTED FINCH Charitospiza eucosma

Likes burned zones in open *cerrado*, recently only at the isolated Broa *cerrado* (22°10′S, 47°52′W) and nearby; protected in Emas National Park but not in any numbers elsewhere.

Sporophila spp.

'Caboclinhos' of the *S. bouvreuil* group disappear, as explained above, because of loss of natural *campos* to stop at on migration as they cross the forest belt in Paraná and São Paulo and because they are subject to heavy

capture for the cage-bird trade.

Sporophila frontalis and S. falcirostris are apparently rare, due to cage-bird fanciers and rarity of seeding of eastern bamboos, their main foods. Recently recorded near Ubatuba (T. A. Parker III), while Willis has seen a few S. frontalis in Carlos Botelho and Itatiaia (en route to Pico dos Três Estados but in Minas Gerais); this species said to be captured in small numbers at rice fields in the Ribeira Valley and to nest on protected Ilha do Cardoso (P. Martuscelli, fide D. F. Stotz).

GREATER LARGE-BILLED SEED FINCH Oryzoborus maximiliani

The object of hundreds of dollars in the cage-bird trade, and a species of swampy borders of local natural campos, this is a bird that has an almost 100% chance of being caught in populous São Paulo. We have not seen it. Oryzoborus angolensis, its smaller and more cluttered-habitat relative, is a thousand-dollar bird for cage-bird song competitions (Sick 1985), picturesque affairs that are incredibly efficient at eliminating a formerly-common species except in occasional places we are not going to tell anybody about.

Discussion

Disappearance

Species disappearing from São Paulo state are mostly birds of inland open habitats, birds of inland dry-forest zones (99% destroyed), bamboo species, and popular cage-birds. The disappearance of birds of open or semi-open natural habitats needs attention, for most people seem surprised that certain species of these zones do not adapt to pastures and fields. The 2 million square kilometers of Brazilian cerrado are the fastest disappearing habitat in the world, mainly for big ranches that do not resettle poor people. Our discussion of this at the 1990 International Ecological Congress in Yokohama attracted woefully little attention. Specifically, Itirapina, Itapetininga, Aguas de Santa Bárbara, and similar campo/cerrado areas need better protection and use of planned burning.

Reservoirs on every possible inch of rivers eliminate other species. We hope the little Aguapeí, Mogi-Guaçu and Sapucaí Rivers will not be next, and propose protected status, perhaps environmental protection areas and local reserves.

Certain mixed-flock or other birds of inland forests seem nearly gone, worse off than Atlantic coastal species that attract attention. Some of the northern inland dry forests, such as Mata Chita, the Pedregulho Canyon, and Fazenda dos Alpes, deserve protection; cattle could be removed from

Paulo de Faria Reserve.

Coastal species with problems are mostly affected by affluent beach-house developments. We especially recommend park status for the north-eastern 5 km of Ilha Comprida, subject to occasional storm wash and better for shorebirds than for houses, plus the southwestern 10 km as the best restinga forest, home of Amazona brasiliensis and a new species of flycatcher (Willis & Oniki 1992), and 40 km from the proposed bridge anyway. T. Sigrist (pers. comm.) found truckloads of forest cutters busy in the centre of the island in January 1992 at the mere rumour of impending reserve status.

Disappearing bamboo specialists probably have to wait too long between bamboo seed crops, since bamboo species that should fill the gaps were in flat housing or agricultural zones inland or coastally. Several species are hit hard by the affluent cage-bird trade, which should be banned or concentrate on abundant *Sporophila caerulescens*. The other seedeaters and parrots sing too well or are too pretty for their own good.

New species

New species are mostly birds of bushy pastures, often from dryer zones to the north and west. Some were present all along—migrant seedeaters, northern upland and *buriti* species that barely reach the state, the mountaintop *O. moreirae*, certain river-edge birds of the west. We are not certain if migrant *Catharus fuscescens* and *Contopus borealis* were here all along or if they have increased with clearings, possible lower numbers of resident competitors, or some other factor.

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Taxonomy of the blue-crested group of Cyanocitta stelleri (Steller's Jay) with a description of a new subspecies

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Populations of Cvanocitta stelleri (Steller's Jay) that breed from Alaska to northern Mexico, as far south as Jalisco in western Mexico, and one population (azteca) in central Mexico, are black-crested. Blue-crested populations surrounding C. s. azteca breed in the mountains from southern San Luis Potosí, Guanajuato and Michoacán (Fig. 1) south to Honduras and Nicaragua. Blue- and black-crested (azteca) populations intergrade only in Michoacán and western Veracruz.

Blake (in Blake & Vaurie 1962) recognized five subspecies in the blue-crested group: coronata Swainson, 1827, from Guanajuato, San Luis Potosi, Hidalgo, northern Veracruz, and "(?)" Oaxaca; purpurea Aldrich, 1944, from Michoacán; teotepecensis Moore, 1955, from Guerrero; ridgwayi Miller and Griscom, 1925, from Chiapas to western Guatemala, El Salvador, and "(?)" Honduras; and suavis Miller and Griscom, 1925, from Nicaragua. An additional name, C. s. restricta, was